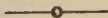


OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE
AGRICULTURAL EXPERIMENT STATION
STILLWATER, OKLAHOMA

RATIONS

for

*Hogs, Dairy Cows, Beef Cattle,
Horses and Sheep*



Rations for Hogs, Dairy Cows, Beef Cattle, Horses and Sheep

SOME BROOD SOW RATIONS

The following are some suggestive rations for pregnant sows that can be modified to suit the needs of the feeder.

Where grain is suggested, corn, barley, kafir, feterita, milo maize, darso or wheat can be used. If any of the grains, except corn, are used they should be ground as it adds from 10 to 20 percent to their feeding value. Corn gives just as good results fed shelled or in the ear as when ground, hence it is not necessary to grind the corn in order to mix it with the ration. Tankage can be fed dry in a long trough where the sows can each get their share, or can be mixed with the wheat shorts and fed in the form of a thick slop. Wheat shorts is best fed in the form of a thick slop as it is a little gummy and the sows do not eat it readily when fed dry. Skim milk and buttermilk can be fed either mixed with the shorts in a thick slop or fed in a trough without any preparation. Where alfalfa is suggested, any legume hay, such as clover, cow pea or soybean hay can be used but will not give as good results as alfalfa. The alfalfa can be fed in racks. Pasture should be included in the ration where possible as it is an excellent source of protein and mineral and furnishes the bulk necessary and is a laxative feed.

Separate the Brood Sows From the Herd

Due to the fact that requirements for mature sows, fattening hogs, and immature gilts are different, it will be necessary to separate the brood sows from the fattening hogs and keep the mature brood sows and immature gilts in separate pens, if the best results are to be secured.

Rations for Mature Brood Sows With Legume Hay or Pasture

Ration 1—
Pasture or alfalfa hay
Grain

Ration 2—
Pasture or alfalfa hay
Grain—3 parts
Shorts—2 parts

Ration 4—
Pasture or alfalfa hay
Grain—14 parts
Wheat shorts—5 parts
Tankage—1 part

Ration 3—
Pasture or alfalfa hay
Grain—9 parts
Tankage—1 part

Rations for Mature Sows Without Legume Hay or Pasture

Ration 5—
Grain—6 parts
Wheat shorts—5 parts

Ration 7—
Grain—13 parts
Wheat shorts—5 parts
Tankage—1 part

Ration 6—
Grain—8 parts
Tankage—1 part

(If the wheat shorts are very fine or floury, containing very little hull, some bran can be used to replace part of the wheat shorts, giving a little more bulk to the ration).

Rations for Immature Gilts With Legume Hay or on Pasture

Ration 8—

Pasture or alfalfa hay
Grain—6 parts
Wheat shorts—5 parts

Ration 9—

Pasture or alfalfa hay
Grain—8 parts
Tankage—1 part

Ration 10—

Pasture or alfalfa hay
Grain—13 parts
Wheat shorts—5 parts
Tankage—1 part

Rations for Immature Gilts Without Pasture or Legume Hay

Ration 11—

Grain—5 parts
Wheat shorts—5 parts

Ration 12—

Grain—7 parts
Tankage—1 part

Ration 13—

Grain—12 parts
Wheat shorts—5 parts
Tankage—1 part

In Ration 1, where a good quality of alfalfa hay is used and where the pasture is luxuriant and tender, a mature sow can secure sufficient protein from these sources without the addition of commercial protein feeds. By feeding sufficient grain to produce the required gains, this makes an excellent ration.

In Rations 2, 5 and 11, the shorts can be fed in the form of a thick slop and the corn either fed shelled or on the ear. If any of the small grains are used, they should be ground and can be mixed with the shorts and fed in the form of a thick slop.

In Rations 3, 6 and 12, the tankage can be best fed dry in long troughs where there is plenty of room for each sow to secure her share.

In Rations 4, 7, 10 and 13, the wheat shorts and tankage can be mixed and fed in the form of a thick slop or if the grain consists of the small grains ground, it can be mixed with the shorts and tankage and the three fed in the form of a thick slop.

It will be noted in Rations 5 and 11, without pasture or alfalfa hay, that the rations are decidedly lacking in mineral matter. If these rations are used, some of the minerals suggested below should be supplied the sow, allowing her access to them at will. These minerals are best fed by mixing with an equal part of salt and placed in the dry.

It will be noted that neither bran or oats have been included in any of the rations. Unless they are needed to supply a little more bulk to the ration, it is not advisable to use either wheat bran or oats as they are both expensive hog feed. Oats should be 25 per cent to 40 per cent cheaper than corn before it can be used economically for hogs.

Skim milk can be used to balance a ration for brood sows, if necessary, but it is usually advisable to feed skim milk to pigs and fattening hogs instead of brood sows. Where it is used, however, 1 part of grain to 2 or 3 parts of milk will balance a brood sow ration.

RATIONS FOR FATTENING HOGS

Self-Feeders

There is probably no more successful way of fattening hogs than to place corn and tankage in separate compartments of a self-feeder. The advantage in this lies in that the hog instinctively balances its own ration better than the feeder can balance it for him. Experimental results show that

where self-feeders are used, the hogs, on an average, make more rapid gains and produce one hundred pounds of gain on less feed than where the same feeds are fed by hand. It is necessary to use tankage in the self-feeder as hogs will not consume enough of any other protein supplement in the dry form to balance a corn ration. It is necessary to have plenty of fresh water available at all times with this method of feeding.

Some Rations for Fattening Hogs

(Weighing from 50 to 150 pounds in dry lot)

Ration 1—

Grain—8 parts
Tankage—1 part

Ration 2—

Grain—1 part
Skim milk or buttermilk—3 parts

Ration 4—

Grain—13 parts
Wheat shorts—5 parts
Tankage—1 part

Ration 3—

Grain—1 part
Wheat shorts—1 part

Some Rations for Fattening Hogs

(Weighing from 150 to 250 pounds in dry lot)

Ration 5—

Grain—10 parts
Tankage—1 part

Ration 6—

Grain—1 part
Skim milk or buttermilk—2 parts

Ration 8—

Grain—18 parts
Wheat shorts—6 parts
Tankage—1 part

Ration 7—

Grain—2 parts
Wheat shorts—1 part

Some Rations for Fattening Hogs

(Weighing from 50 to 150 pounds on pasture)

Ration 9—

Pasture
Grain—10 parts
Tankage—1 part

Ration 10—

Pasture
Grain—2 parts
Skim milk or buttermilk—1 part

Ration 11—

Pasture
Grain—2 parts
Wheat shorts—1 part

Ration 12—

Pasture
Grain—15 parts
Wheat shorts—5 parts
Tankage—1 part

Some Rations for Fattening Hogs

(Weighing from 150 to 250 pounds on pasture)

Ration 13—

Pasture
Grain—15 parts
Tankage—1 part

Ration 14—

Pasture
Grain—1 part
Skim milk or buttermilk—1 part

Ration 15—

Pasture
Grain—3 parts
Wheat shorts—1 part

Ration 16—

Pasture
Grain—20 parts
Wheat shorts—6 parts
Tankage—1 part

It is always better to fatten hogs on pasture if possible, as it increases the gain and decreases the concentrates required to produce a pound of gain.

Mineral Mixtures

Hogs that have access to good pasture, legume hay, tankage or milk will not require mineral in addition. If these feeds are not available, however, one of the following mineral mixtures should be kept before the hogs at all times.

No. 1—

Wood ashes—1 part
Salt—1 part

No. 2—

Air slaked lime—1 part
Salt—1 part

No. 3—

Air slaked lime or wood ashes— 1
part
Bone meal—1 part
Salt—1 part

Charcoal is relished by hogs and can be added to any of the above mixtures if desired.

FEEDING DAIRY COWS

Good feeding and economical feeding of dairy cows are essential in the successful pursuit of dairying on all farms of Oklahoma where cows are kept. Dairy cows must be kept in good physical condition and maintain a normal body weight in order to function to the fullest extent, both in the amount of milk production and for economical production.

A good dairy cow, one that will manufacture milk and butterfat at a profit, should produce not less than 6000 pounds of milk or 250 pounds of butterfat in ten months.

A good dairy cow should be fed for the following purposes:

1. To maintain her body weight or a maintenance ration.
2. To produce the most milk she is capable of producing.
3. For growth, if cow is immature.
4. For development of foetus if cow is bred.
5. At times for gain in weight. (When cow is dry to build up her body in preparation for the next lactation period).

Forty per cent of the feed ordinarily fed to a cow is used for other purposes than to produce milk. A cow which is underfed cannot produce milk to her full capacity but will also lose in body weight, cannot grow normally if she is immature, and will not produce a healthy, vigorous calf.

General Rules for Feeding Dairy Cows

1. Feed a legume hay, such as alfalfa hay, cowpea hay, soybean hay, or sweet clover hay at the rate of one pound of hay for each 100 pounds live weight of the cow. Some coarse non-legume hay may be fed in addition.

2. Feed ensilage at the rate of $2\frac{1}{2}$ to $3\frac{1}{2}$ pounds per 100 pounds live weight.

3. Feed a balanced grain mixture at the rate of one pound of grain for every three pounds of milk produced for Jersey and Guernsey cows and one pound of grain for every four pounds of milk for Holstein or Ayrshire cows. To illustrate: A Jersey cow producing four gallons or 34.0 pounds of milk should receive from eleven to twelve pounds of grain.

When cows are on good pasture, the grain can be reduced from one-half to two-thirds. Good cows will require some grain even when on good pasture.

When ensilage or pasture is not available, the amount of grain to be fed along with hay should be increased according to the requirements of the cow both to maintain her body weight and to produce milk.

Grain Mixture With Legume Hay

Mixture No. 1—		Mixture No. 2—	
Ground corn	400 lb.	Ground oats	800 lb.
Ground oats	350 lb.	Wheat bran	150 lb.
Wheat bran	175 lb.	Cottonseed meal	50 lb.
Cottonseed meal	75 lb.	Total	1,000 lb.
Total	1,000 lb.		

Mixture No. 3—

Ground barley	} Use either	750 lb.
Ground kafir		
Ground milo		
Wheat bran		200 lb.
Cottonseed meal		50 lb.
Total		1,000 lb.

If legume hay is not available and such rough feed as prairie hay, Sudan hay, or grain sorghum fodder must be fed to dairy cows, when there is no pasture, the following grain mixtures are suggested to be fed according to Rule 1.

Cows should have all the hay they will eat.

Grain Mixture With Non-legume Hay

Mixture No. 1—		Mixture No. 2—	
Ground oats	700 lb.	Ground corn	400 lb.
Wheat bran	150 lb.	Wheat bran	350 lb.
Cottonseed meal	150 lb.	Cottonseed meal	250 lb.
Total	1,000 lb.	Total	1,000 lb.

Mixture No. 3—

Ground barley	} Use either	550 lb.
Ground kafir		
Ground milo		
Wheat bran		250 lb.
Cottonseed meal		200 lb.
Total		1,000 lb.

Legume hay such as alfalfa contains large quantities of lime and other minerals which enter into the composition of milk. When there is not sufficient lime in a cow's ration, it can be supplied by adding five pounds of ground, steamed bone meal to every 1000 pounds of grain feed.

One pound of salt mixed with 100 pounds of grain is also recommended.

Dairy cows must have plenty of clean, fresh water, with a possible free access to it. A cow should drink from ten to fifteen gallons of water each day. In cold weather warming the drinking water is essential in keeping up the flow of milk.

CATTLE

Rations for Wintering Beef Cattle and Mature Cows

No. 1—

Wheat pasture
Wheat straw, full fed, without waste
Cottonseed meal or cake, 1 to 2 lbs.
Prairie hay, Sudan hay, kafir stover
or cane hay, full fed, without waste

No. 2—

Silage, 35 lbs. daily
Wheat straw, full fed
Alfalfa hay, 2 to 3 lbs. per head

No. 3—

Silage, 35 pounds
Wheat straw, full fed
Cottonseed meal or cake, 1 to 2 lbs.

Rations for Fattening Beef Cattle

(On basis of 1000-lb. steer on full feed)

No. 1—

Silage, 15 to 20 lbs.
Alfalfa hay, 4 to 6 lbs.
Shelled corn, 15 to 20 lbs.
Cottonseed meal or cake, 43 percent
protein, 2½ lbs.

No. 4—

Alfalfa hay, 8 to 10 lbs.
Cottonseed meal, 43 percent pro-
tein, 2½ lbs.
Corn, 18 to 20 lbs.

No. 3—

Prairie hay, full fed
Cottonseed meal 43 percent protein,
2½ lbs.
Corn or ground kafir, 18 to 20 lbs.

No. 2—

Silage, 20 lbs.
Alfalfa hay, 6 to 8 lbs.
Ground kafir or barley, 18 to 20
lbs.

No. 5—

Alfalfa hay, 8 to 10 lbs.
Ground kafir and ground oats (equal
parts)

○

HORSES

Rations for Work Horses

(On basis of 1000-lb. horse, daily feed)

No. 1—

Ground oats, 8 lbs.
Wheat bran, 4 lbs.
Prairie hay, full fed (12-14 lbs.)

No. 2—

Ground kafir, 8 lbs.
Wheat bran, 4 lbs.
Prairie hay, full fed, (12-14 lbs.)

No. 3—

Ground corn, 8 lbs.
Wheat bran, 4 lbs.
Prairie hay, full fed (12-14 lbs.)

No. 4—

Whole oats, 10 lbs.
Wheat bran, 2 lbs.
Alfalfa hay, liberal amount but
limited (10 lbs.)

Regularity of feeding essential. Feed only a light ration of hay at noon.

SHEEP

Rations for Wintering Breeding Ewes

Ration 1—

Pasture

 $\frac{2}{3}$ lb. alfalfa hay

Ration 3—

 $\frac{1}{2}$ lb. oats $\frac{2}{3}$ lb. alfalfa hay

Ration 2—

2 parts oats

1 part bran

1 to $1\frac{1}{2}$ lbs. alfalfa hay

3 lbs. silage

Ration 4—

Corn $\frac{1}{2}$ lb.Linseed oil meal, $\frac{1}{8}$ lb.

3 lbs. cane or Sudan hay

Rations for Fattening Lambs

Ration 1—

1 to $1\frac{1}{2}$ lbs. corn1 to $1\frac{1}{2}$ lbs. alfalfa hay

Ration 2—

1 lb. corn

 $\frac{1}{8}$ lb. cottonseed meal1 to $1\frac{1}{2}$ lbs. cane or Sudan hay

Ration 3—

1 lb. corn

 $\frac{1}{8}$ lb. linseed oil meal or cottonseed meal $\frac{1}{2}$ lb. cane hay1 to $1\frac{1}{2}$ lbs. silage

Any of the grain sorghums or barley can be used instead of corn. Always have pasture in winter if possible—also feed some legume hay such as alfalfa, cowpea, clover hay—2 to 3 pounds of silage is as good as one pound of hay.